

Appl. No. : 10/016,705
Filed : December 10, 2001

AMENDMENTS TO THE CLAIMS

Please cancel Claims 28-33 and 35 without prejudice, as indicated below.

Please amend Claim 34 as indicated below.

A complete listing of all claims is presented below with insertions underlined (e.g., insertion), and deletions struckthrough or in double brackets (e.g., ~~deletion~~ or [[deletion]]):

1. (Previously Presented) An accommodating intraocular lens for implanting in an individual's eye, which comprises:

a deformable elastic dynamic lens having a surface curvature;

a lens-shaping member having flexible portions in contact with said dynamic lens for enabling deformation of said dynamic lens for changing said surface curvature;

an elastically flexible member in contact with said lens-shaping member flexible portions, wherein said flexible member comprises a coil encircling said flexible portions of the lens-shaping member; and

first and second lens supporting members, said first lens supporting member having a proximal end region engaging said flexible member and a distal end region, said second lens supporting member having a proximal end region connected to said lens-shaping member and a distal end region, the distal end region of the first lens supporting member being configured upon implantation to engage a first region of said individual's eye that is responsive to contraction and relaxation of a ciliary muscle disposed in a ciliary body region of said individual's eye.

2. (Previously Presented) The accommodating intraocular lens as claimed in Claim 1, wherein the distal end region of the second lens supporting member is configured to engage a second region of said individual's eye, the first and second regions generally centered on a single meridian that passes through an optical axis of the dynamic lens.

3. (Original) The accommodating intraocular lens as claimed in Claim 1, wherein each of said first and second lens supporting members are relatively rigid as compared with said dynamic lens.

4. (Original) The accommodating intraocular lens as claimed in Claim 1, wherein said proximal end region of the second lens supporting member is rigidly connected to said lens-shaping member.

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5. (Original) The accommodating intraocular lens as claimed in Claim 1, wherein said lens-shaping member and said second lens supporting member are constructed in one piece.

6.-9. (Cancelled)

10. (Previously Presented) The accommodating intraocular lens as claimed in Claim 1, wherein said intraocular lens is implantable in an individual's capsular bag from which a natural lens has been removed and wherein the distal end regions of said first and second lens supporting members are configured for attachment to the capsular bag adjacent to opposing ciliary body-connected zonules.

11. (Previously Presented) The accommodating intraocular lens as claimed in Claim 10, wherein said flexible portions of the lens-shaping member are responsive to increases of tension applied to said first and second lens supporting members by said zonules upon relaxation of said ciliary muscle by elastically returning to a larger diameter condition, thereby increasing a diameter of said dynamic lens and decreasing said surface curvature to attain a non-accommodating condition.

12. (Previously Presented) The accommodating intraocular lens as claimed in Claim 10, wherein said flexible portions of the lens-shaping member are responsive to decreases of tension applied to said first and second lens supporting members by said zonules upon contraction of said ciliary muscle by elastically returning to a smaller diameter condition, thereby reducing a diameter of said dynamic lens and increasing said surface curvature to attain an accommodating condition.

13.-15. (Cancelled)

16. (Previously Presented) The accommodating intraocular lens as claimed in Claim 1, wherein said flexible member comprises a shape memory metallic alloy.

17. (Previously Presented) The accommodating intraocular lens as claimed in Claim 1, wherein said dynamic lens comprises a silicone or acrylic material.

18. (Previously Presented) The accommodating intraocular lens as claimed in Claim 1, wherein said lens-shaping member and said first and second lens supporting members comprise polymethyl methacrylate.

19. (Original) The accommodating intraocular lens as claimed in Claim 1, wherein said second lens supporting member includes a static, non-accommodating lens having an optical axis aligned with an optical axis of said dynamic lens.

20.-33. (Cancelled)

34. (Currently Amended) An accommodating intraocular lens, comprising:
a lens having a deformable surface; and

first and second members coupled together to transfer force from the ciliary muscle to the lens, said second member comprising a strand forming a loop having a diameter which encircles at least a central portion of the lens, said first member responsive to action of the ciliary muscle to apply a first force to said second member such that the diameter of the loop changes, said second member applying a second force which acts on the circumference of the lens in response to said first force such that both the circumference and the curvature of the lens change~~The accommodating intraocular lens of Claim 31, wherein the first member comprises a forked member that splays in response to contractions of the ciliary muscle to reduce the compression of the second member.~~

35. (Cancelled)

36. (Previously Presented) The accommodating intraocular lens as claimed in Claim 1, wherein said intraocular lens is implantable in an individual's capsular bag from which a natural lens has been removed and wherein the distal end regions of said first and second lens supporting members are configured for direct contact with said ciliary body region.

37. (Previously Presented) The accommodating intraocular lens as claimed in Claim 36, wherein said flexible member and said flexible portion of the lens-shaping member each have a larger diameter condition corresponding to an expanded diameter of the dynamic lens and a smaller diameter condition corresponding to a reduced diameter of the dynamic lens, and wherein said flexible member and said flexible portions of the lens-shaping member are configured for elastically returning to said smaller diameter conditions in response to said contraction of said ciliary muscle and for elastically returning to said larger diameter conditions in response to said relaxation of said ciliary muscle.

38. (Previously Presented) The accommodating intraocular lens as claimed in Claim 36, wherein said elastically flexible member is responsive to a compressive force applied

to the distal end regions of said first and second lens support members by said ciliary body region upon contraction of said ciliary muscle by squeezing said flexible portions of the lens-shaping member, thereby reducing a diameter of said dynamic lens and increasing said surface curvature of said dynamic lens.

39. (Previously Presented) The accommodating intraocular lens as claimed in Claim 1, wherein said intraocular lens is implantable in an anterior chamber of the eye with the distal end region of said first lens supporting member directly contacting said ciliary body region, and with said second lens supporting member attached to an iris region of said eye.

40. (Previously Presented) The accommodating intraocular lens as claimed in Claim 39, wherein said flexible member and said flexible portions of the lens-shaping member each have a larger diameter condition corresponding to an expanded diameter of the dynamic lens and a smaller diameter condition corresponding to a reduced diameter of the dynamic lens, and wherein said flexible member and said flexible portions of the lens-shaping member are responsive to reduction of a compressive force applied to the distal end region of said first lens supporting member by said ciliary body region upon relaxation of said ciliary muscle by elastically returning to said larger diameter conditions, thereby elastically expanding a diameter of said dynamic lens and elastically decreasing said surface curvature of said dynamic lens to a non-accommodating condition.

41. (Previously Presented) The accommodating intraocular lens as claimed in Claim 40, wherein said flexible member is responsive to a compressive force applied to said first lens supporting member by said ciliary body region upon contraction of said ciliary muscle by squeezing said flexible portions of the lens-shaping member, thereby elastically reducing the diameter of said dynamic lens, and elastically increasing said surface curvature of said dynamic lens to an accommodating condition.